

CLAIMS:

1. An apparatus for displaying information received from a communication apparatus, comprising:

a key information producing unit configured to produce key information used to authenticate said communication apparatus;

a key information display unit configured to display said key information;

an authentication information receiving unit configured to receive authentication information;

an authenticating unit configured to authenticate said communication apparatus by verifying whether or not said authentication information was formed based upon said key information; and

a display information receiving unit configured to receive display information from said authenticated communication apparatus,

wherein said authenticated communication apparatus has a distribution range of said key information such that said key information displayed on said key information display unit can be viewed.

2. The apparatus as claimed in claim 1, wherein said key information display unit converts said key information into a picture that can be displayed by said information display unit and superimposes said picture on an image of the display information to display a superimposed picture.

3. The apparatus as claimed in claim 1, further comprising a display panel, wherein said key information display unit displays said key information on said display panel as at least one of a character or an image.

4. An apparatus for displaying information received from a communication apparatus, comprising:

a key information producing unit configured to produce key information used to authenticate said communication apparatus;

a key information output unit configured to output sound to distribute said key information;

an authentication information receiving unit configured to receive authentication information;

an authenticating unit configured to authenticate said communication apparatus by verifying whether or not said authentication information was formed based upon said key information; and

a display information receiving unit configured to receive display information from said authenticated communication apparatus,

wherein said authenticated communication apparatus has a distribution range of said key information such that a sound outputted by said key information output unit can be heard.

5. An apparatus for displaying information received from a communication apparatus, comprising:

a key information producing unit configured to produce key information used to authenticate said communication apparatus;

a key information transmitting unit configured to transmit said key information by infrared transmission to distribute said key information;

an authentication information receiving unit configured to receive authentication information;

an authenticating unit configured to authenticate a communication apparatus by verifying whether or not said authentication information was formed based upon said key information; and

a display information receiving unit configured to receive display information from said authenticated communication apparatus as display information to be displayed,

wherein said authenticated communication apparatus has a distribution range of said key information such that the infrared rays transmitted by said key information transmitting unit can be received.

6. The apparatus as claimed in claim 1, wherein the communication apparatus authenticated by said authenticating unit is further equipped with a display information transmitting unit configured to transmit the display information displayed by said information display unit.

7. The apparatus as claimed in claim 1, wherein unless said key information producing unit produces a second key information, said display information receiving unit receives display information from said authenticated communication apparatus without requiring a second authentication.

8. The apparatus as claimed in claim 1, wherein a communication system utilized in the communication of said authentication information and said display information is different from a communication system utilized in the distribution of said key information.

9. The apparatus as claimed in claim 6, wherein said display information transmitting unit encrypts the display information to be transmitted such that the encrypted display information can be decoded by said communication apparatus.

10. A method used in an information display apparatus for displaying information received from a communication apparatus, comprising:

producing key information used to authenticate said communication apparatus;
distributing said key information;
receiving authentication information for authenticating said communication apparatus;
authenticating said communication apparatus by verifying whether or not said authentication information was formed based upon said key information; and
receiving display information of said authenticated communication apparatus to display information,

wherein said authenticated communication apparatus has a distribution range of said key information such that said outputted key information can be acquired.

11. The method as claimed in claim 10, wherein said distributing includes at least one of displaying an image, emitting a sound, or transmitting by infrared transmission.

12. A system, comprising:
a communication apparatus;
an information display apparatus configured to display information transmitted from said communication apparatus,
said communication apparatus comprising,

a key information input unit configured to input key information outputted by said information display apparatus, and

authentication information producing unit configured to produce authentication information used to authenticate said communication apparatus by employing said key information,

said information display apparatus comprising,

a key information producing unit configured to produce said key information,

a key information output unit configured to output said produced key information,

an authentication information receiving unit configured to receive said authentication information,

an authenticating unit configured to authenticate a communication apparatus by verifying whether or not said authentication information was formed based upon said key information, and

a display information receiving unit configured to display information received from said authenticated communication apparatus,

wherein said authenticated communication apparatus has a distribution range of said key information such that said key information outputted by said key information output unit can be received.

13. The system as claimed in claim 12, wherein said information display apparatus further comprises a display information transmitting unit configured to transmit display information to the communication apparatus authenticated by said authenticating unit.

14. The system as claimed in claim 12, wherein outputting said key information transmits by way any one of a display image, a sound, and an infrared transmission.

15. The system as claimed in claim 12, wherein said key information output unit is configured to convert said key information into a picture for display by said information display unit, and to superimpose said converted picture on the display information to display a superimposed picture.

16. The system as claimed in claim 15, wherein said key information input unit includes a camera configured to capture an image of the key information outputted by said key information output unit.

17. The system as claimed in claim 12, wherein said communication apparatus includes an encrypting unit configured to encrypt display information such that said encrypted display information can be decoded by said information display apparatus, and to encrypt display information to transmit the encrypted display information.

18. The system as claimed in claim 13, wherein said communication apparatus includes an encrypting unit configured to encrypt display information such that said encrypted display information can be decoded by said information display apparatus, and to encrypt display information, and

said information display apparatus is configured to encrypt the display information transmitted by said display information transmitting unit such that said encrypted display information can be decoded by said communication apparatus.

19. An apparatus for use with an information display apparatus for displaying information received from a communication apparatus, the apparatus comprising:

- means for producing key information used to authenticate said communication apparatus;
- means for distributing said key information;
- means for receiving authentication information for authenticating said communication apparatus;
- means for authenticating said communication apparatus by verifying whether or not said authentication information was formed based upon said key information; and
- means for receiving display information of said authenticated communication apparatus to display information,

wherein said authenticated communication apparatus has a distribution range of said key information such that said outputted key information can be acquired.

20. The method as claimed in claim 19, wherein said means for distributing includes at least one of means for displaying an image, means for emitting a sound, or means for transmitting by infrared transmission.